

cently recorded as a British plant, and supposed to have been first noticed by Messrs. Ball and Babington on the Gogmagog Hills, in Cambridgeshire. He states that the original drawing published in 'English Botany' as *C. præcox*, and made by the late James Sowerby, represented *C. ericetorum*, but that "Smith saw that the glumes were not those of *C. præcox*, and the details were in consequence altered." Thus the plant was found by some botanist at least as long since as the year 1802; but, unfortunately, the locality is not recorded. His researches have shown that, unfortunately, such alterations of the original drawings were not unfrequently made by Smith, and that thus many of the difficulties have arisen which we now meet with when endeavouring to identify plants with the otherwise valuable plates in 'English Botany.'

Some interesting papers appear in the Appendix. First, a table showing the dates of the earliest and latest notice of many plants in Essex. Some few of these are as early as the sixteenth, and a good many occur in the seventeenth century. Next we have a table of the comparative abundance of each plant. They are arranged as "common," "rather local," and "very local." No. 3 is a comparison of the floras of Essex, Cambridge, Hertford, and Kent. No. 4 relates to the arrangement of the plants of Great Britain according to their comparative frequency, as given in Watson's 'Cybele Britannica,' vol. iv. No. 5 gives a short list of plants not unlikely to be found in Essex. No. 6 includes biographical sketches of the celebrated John Ray, who commenced and ended his life in Essex; of Samuel Dale, Richard Warner, and the recently lost and justly lamented Edw. Forster.

It will be seen by what we have said, that this is a work quite up to the requirements of the present time, highly creditable to its author, and well deserving of the attention of English botanists; and it is probably unnecessary to add that it does not contain descriptions of the plants, but that the general floras of Britain are referred to for information of that kind, as is now the usual and laudable custom of writers on local botany.

A Manual of European Butterflies. By W. F. KIRBY.
Williams & Norgate. 1862.

A descriptive Manual of the Butterflies of Europe has long been a desideratum with those of our travellers who, not caring to make a close study of entomology, still take some interest in the more conspicuous objects of natural history. Of these objects none are more striking or beautiful than the numerous butterflies which, in our Continental rambles, at once attract notice, whether they rise from the rushes on the steep mountain-side, or on the sultry plain flit lazily from flower to flower, a "joy for ever" to all whose hearts sympathize with nature.

Mr. Kirby offers us descriptions of 321 species of *Rhopalocera*: these descriptions are partly original, partly compiled or condensed from the best foreign authorities. We may here be permitted to

protest against the singular use which our author has made of the signs * and †, to indicate that specimens have been examined by himself. Mr. Kirby is a young author, and we are sure that he will forgive our pointing out that these signs are very perplexing to the eye, and, besides, have been used for quite different purposes in other scientific works. How much easier to have appended the usual "B. M." or the marks "!!" or "*vidi spec.*" In the same way, when the descriptions are quoted or abridged, how much more satisfactory if these had been noted by inverted commas or an abbreviated name.

At the head of each genus, we find an analysis of the species comprised in it. Here we cannot but regret that Mr. Kirby has not adopted the Lamarckian or dichotomous method. The use, also, of *italics* for the more distinctive characters in the specific descriptions would have been a great boon to the traveller, whose time is so valuable.

We think that the authority should have followed the specific names in the body of the book, as well as in the synonymic list given in the Appendix. We say it with reluctance; but the carelessness of entomologists is in this respect quite proverbial.

We could have wished that the best figure of each insect had been quoted throughout; and certainly some indication of the range might have followed the specific descriptions. By using five capital letters for "North, Middle, South, East, and West" Europe, much information might have been condensed in a very short space. The alpine or mountain insects might have been distinguished in a similar manner, and the "kind of station" would have been another welcome addition.

Having relieved our mind by these free remarks, we have no hesitation in recommending Mr. Kirby's handy-book to the notice of our summer tourists. Travellers are in these days very apt to run into zoological eccentricities. It is not at all uncommon to see blue or green gauze nets waving on the Rhigi or from a passing carriage, in many parts of the Continent. The 'Manual of European Butterflies' is a work of good promise, and a proof of no small diligence on the part of its author.

But why should entomologists have a monopoly? With the exception of Lord Clermont's little book on the Mammals and Reptiles of Europe, we know of no portable Manual for the English traveller of zoological tastes, when he is starting for a six-weeks' ramble on the Continent. Have we not other naturalists who might give us the digested results of their long study of different branches of the European Fauna? Might we suggest to Mr. Alfred Newton how useful would be a manual of the European birds? And will not Dr. Günther take pity on the poor fishes, all neglected since the illustrious Agassiz left Europe for his Transatlantic home?

A very useful feature of Mr. Kirby's book is the table of geographical distribution, inserted as an Appendix. This table is admirably constructed; for Mr. Kirby has succeeded in showing not only the country in which each insect has been found, but also the

name of the authority in every case. We commend this Appendix as quite a model of how much information may be conveyed in a few pages.

A second Appendix supplies a complete and partly synonymic catalogue of all the European Butterflies, amounting, as we said before, to 321 species. In his estimate of the number of species Mr. Kirby has wisely contented himself with following a good recent authority—Staudinger.

We must now leave the Butterflies of Europe in the hands of Mr. Kirby and his fellow entomologists. We trust that enough has been said to stimulate travellers to the contemplation, if not the capture, of *some* of the 321 species.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

Nov. 20, 1862.—Major-General Sabine, President, in the Chair.

“On the Fossil Remains of a long-tailed Bird (*Archeopteryx macrurus*, Ow.) from the Lithographic Slate of Solenhofen.” By Prof. Richard Owen, F.R.S.

The author details the circumstances connected with the discovery of the fossil remains, with the impressions of feathers, in the Lithographic slates of Solenhofen, of the Oxfordian or Corallian stage of the Oolitic period, and of the acquisition for the British Museum of the specimen which forms the subject of his paper.

The exposed parts of the skeleton are,—the lower portion of the furculum; part of the left os innominatum; nineteen caudal vertebræ in a consecutive series; several ribs, or portions of ribs; the two scapulæ, humeri, and antibrachial bones; parts of the carpus and metacarpus, with two unguiculate phalanges, probably belonging to the right wing; both femora and tibiæ, and the bones of the right foot; impressions of the quill-feathers radiating fan-wise from each carpus, and diverging in pairs from each side of the long and slender tail. The above parts indicate the size of the winged and feathered creature to have been about that of a rook. The several bones, with their impressions and those of the feathers, are described, and the bones are compared with their homologues in different Birds and in Pterodactyles. Whence it appears that, with the exception of the caudal region of the vertebral column, and apparently of a biunguiculate manus, with less confluent condition of the metacarpus, the preserved parts of the skeleton of the feathered animal accord with the ornithic modifications of the vertebrate skeleton. The main departure therefrom is in a part of that skeleton most subject to variety. Twenty caudal vertebræ extend from the sacrum in a consecutive and naturally articulated series, resembling in structure and proportions those of a squirrel. The tail-feathers are in pairs corresponding in number with the vertebræ, diverging therefrom at an angle of 45° backward, be-